

**LOUISIANA DEPARTMENT OF AGRICULTURE & FORESTRY
INFORMATION ON 'SUDDEN OAK DEATH'
(ALSO KNOWN AS 'RAMORUM BLIGHT' OR 'RAMORUM DIE-BACK')**

In March 2004 USDA and the state of California reported finding *Phytophthora ramorum*, a fungal pathogen causing decline of native oak stands in coastal California, in woody ornamental nursery stock at a large commercial nursery in southern California. The disease, dubbed 'sudden oak death' (SOD) also was detected in camellia stock of a small California mail-order nursery. Over 40 states had received potentially-infected stock from these nurseries. In response, our department implemented a provisional ban on all California nursery stock effective March 23, 2004. Only stock that had been sampled, tested and found free from SOD was allowed entry. This ban was more stringent than subsequent federal restrictions that were put in place; however, Louisiana maintained its ban despite the federal quarantine based on scientific evidence that the pest risk potential was high. Nationwide, multiple state restrictions prompted national debate.

We initiated trace-forward surveys at Louisiana locations that received stock from the infected nursery. In total, 22 sites were identified, sampled and tested. Five sites returned 14 positive SOD samples. All associated plants (~1500) were destroyed. Louisiana also participated in a national SOD survey by sampling and testing 26 additional nursery sites. Soil samples and forested areas also were sampled and found free of SOD. In total, ~1140 samples were tested in Louisiana and found free from SOD. **There was and is no evidence that SOD is present in Louisiana.**

Effective January 10, 2005 USDA amended its federal quarantine to include certain restrictions on nursery shipments from SOD-infected states. The amendments brought the federal restrictions in line with those desired originally by Louisiana and other states and our department agreed on that date to release the provisional state ban and follow the amended Federal Order. A summary of that amended order follows.

Louisiana participated in the 2005 SOD National Survey. Participation included re-survey (with sampling as necessary) of the five SOD-positive trace-forward retail nursery sites from 2004; survey and sampling of two trace-forward retail nursery sites for 2005; and survey and sampling of 25 nursery grower sites statewide. Site selection was based on USDA-PPQ risk criteria. High priority locations included sites that receive stock from California/Oregon/Washington sources, and sites that receive or grow known host or associated host plant species. Samples initially were analyzed using ELISA (*enzyme-linked immunosorbent assay*). Any samples showing positive ELISA results were sent to USDA-PPQ for nested PCR (*polymerase chain reaction*) analysis. Sampling and testing was done through the LDAF CAPS cooperative program. Final sample analyses are still underway at this time. In addition, forested areas surrounding nursery locations are being sampled and tested according to national survey protocols.

SUMMARY OF THE AMENDED SOD FEDERAL ORDER, JANUARY 10, 2005

QUARANTINED AREAS (Certain CA and OR counties): All nurseries in quarantined areas must be inspected for symptoms of *P. ramorum* annually. In addition, each shipment of regulated articles of nursery stock must be inspected and found free of *P. ramorum* prior to their interstate movement. Nurseries where host nursery stock and associated articles are grown must be inspected and tested for the presence of *P. ramorum* in advance of the interstate movement of regulated nursery stock. Paperwork accompanying shipments from these nurseries must possess federal certification (the federal 'shield' stamp).

Nurseries that do not contain or ship host and associated plant nursery stock must be visually inspected for *P. ramorum*. Plants showing symptoms of *P. ramorum*-like infection upon inspection will be sampled and tested. All symptomatic plants, plants located in the same lot as a suspect plant, and any plants within 2 meters of this lot of plants must be withheld from interstate shipment until testing is completed and the nursery is found free of *P. ramorum*.

REGULATED AREAS (CA, OR & WA): Nurseries that ship host or associated plant nursery stock interstate may not ship nursery stock interstate until the nursery has been inspected, sampled and tested, and found free of *P. ramorum*. Such nurseries may be inspected, sampled, and tested through an official "State Nursery Stock Cleanliness Program" (SNSCP). A minimum of 40 samples should be taken, biased toward hosts, associated hosts and nearby plants. 'SOD-Free' nurseries may continue to ship interstate for up to one year after certification. Paperwork accompanying shipments from these nurseries must possess federal certification (the federal 'shield' stamp).

Nurseries that do not ship or contain host or associated plant nursery stock interstate may not ship nursery stock interstate until the nursery has been inspected and found free of *P. ramorum*. Only symptomatic plants need to be sampled and tested. 'SOD-Free' nurseries may continue to ship interstate for up to one year after certification. States must maintain lists of nurseries approved for shipping on a regularly-updated web page.

FOR ALL NURSERIES: Plants showing symptoms of *P. ramorum*-like infection upon inspection will be sampled and tested. All symptomatic plants, plants located in the same lot as a suspect plant, and any plants within 2 meters of this lot of plants must be withheld from interstate shipment until testing is completed and the nursery is found free of *P. ramorum*.

USEFUL WEBSITE LINKS

1. The complete amended Federal Order can be found at the following website:
http://www.aphis.usda.gov/ppq/ispm/pramorum/pdf_files/federalorder12-21-04-final.pdf

Included in the Order are: definitions, a listing of quarantined and regulated areas, specific federal restrictions and requirements, exempted nursery stock, inspection procedures, sampling and testing protocols, and a listing of hosts and associated hosts.

2. USDA's complete *Phytophthora ramorum* website:
<http://www.aphis.usda.gov/ppq/ispm/pramorum/>

3. Sudden oak death websites for quarantined / regulated states:
State of Washington: <http://agr.wa.gov/PlantsInsects/Diseases/SOD/default.htm>
State of Oregon: http://egov.oregon.gov/ODA/PLANT/sod_free.shtml
State of California: http://www.cdfa.ca.gov/phpps/pe/sod_survey/

SYMPTOMS

Below are symptoms typical of sudden oak death infection on selected plant species.



CA Bay Laurel





Rhododendron



Camellia



Viburnum

